ABSTRACT:

Nowadays, programmable components (604), rather than dedicated single-function components can perform continuous media processing in consumer devices, like digital television sets (610), set-top boxes, PCs, or VCRs. The media processing algorithms that are written for those programmable components (604), must be designed to provide a plurality of output quality levels in exchange for required processing resources. Since resources are finite, the media processing algorithms must be controlled in their resource usage and the output quality level they provide. Users of consumer devices do not like to see major changes in the quality of, for example, a video they are watching. Therefore, typical algorithm characteristics like the functions an algorithm comprises, the resource usage per function and the quality level per function are used to provide smoother quality transitions.

Figure 6